Region 1

Public Health 2009 Annual Report

South Carolina Department of Health and Environmental Control

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Sites

Abbeville County Public Health Department
(864) 366-2131
Home Health Services 366-2718
905 W. Greenwood Street
Abbeville, SC 29620

Anderson County Public Health Department
(864) 260-5541
Home Health Services 260-5617 or
220 McGee Road 1-888-260-5617
Anderson, SC 29625

Edgefield County Public Health Department
(803) 637-4035
Home Health Services 637-4107
21 Star Road
Edgefield, SC 29824

Greenwood County Public Health Department
(864) 942-3600
Home Health Services 942-3631
1736 South Main Street
Greenwood, SC 29646

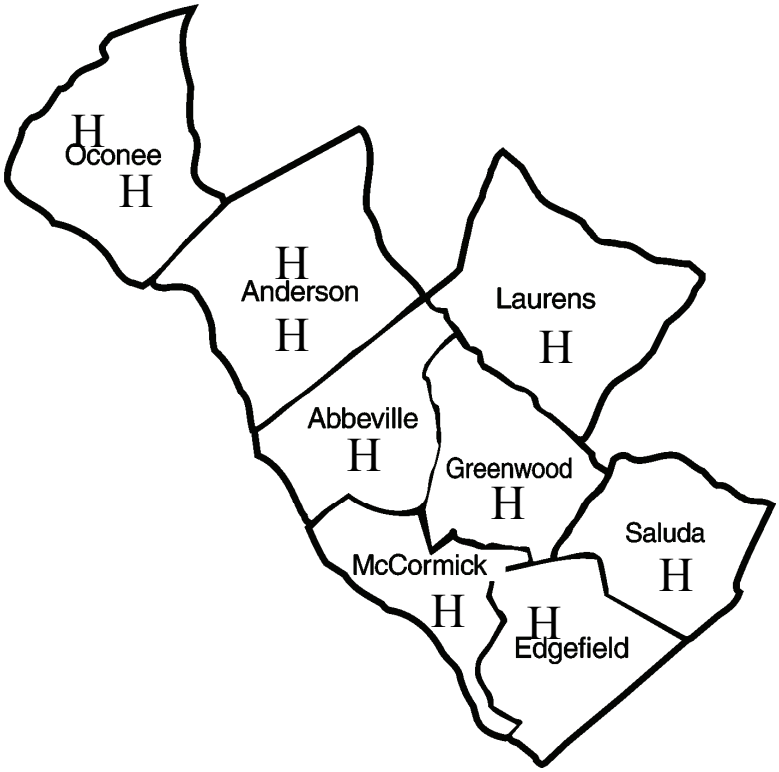
Laurens County Public Health Department
(864) 833-0000
Home Health Services 833-5883
93 Human Services Road
Clinton, SC 29325

McCormick County Public Health Department
(864) 852-2511
Home Health Services 852-2513
204 Highway 28
McCormick, SC 29835

Oconee County Public Health Department
200 Booker Drive (864) 638-4170
Walhalla, SC 29691
609 North Townville Street (864) 882-2245
Seneca, SC 29678
Home Health Services 1-800-260-5617

Saluda County Public Health Department
(864) 445-2141
Home Health Services 445-7041
613 Newberry Highway
Saluda, SC 29138

Westside Community Center
(864) 231-1791
1100 West Franklin Street
Anderson, SC 29624



A Message from the Health Director

Region 1 Public Health

Anderson Headquarters
220 McGee Road
Anderson, SC 29625
(864) 260-5541

Greenwood Headquarters
1736 South Main Street
Greenwood, SC 29646
(864) 942-3600

Dear Fellow Professionals,

This document is designed to inform our stakeholders and partners about our public health successes, activities, emphasis on quality, and our opportunities for partnering. We value our customers and are constantly looking for ways to improve services. Through our efforts, we especially want to make our communities even better places to live, work and play. We are fortunate to live in counties that care and are willing to share resources for the improvement of quality of life. Region 1 counties include Abbeville, Anderson, Edgefield, Greenwood, Laurens, McCormick, Oconee, and Saluda.

South Carolina is blessed with one of the finest public health infrastructures in the nation. The past year has been especially difficult with severe budget cuts, loss of staff, and increasing public need. Despite our struggles, Region 1 has experienced successes in several areas. We continue to make great strides in building relationships with other agencies charged with homeland security. Surveillance of public health issues has prompted us to act quickly to contain the spread of diseases. Data analysis and community collaboration have aided us in planning interventions designed to lower our infant mortality rates and implement evidence-based programs.

On behalf of the employees of our region, I am pleased to present to you the 2009 DHEC Region 1 Annual Report. We are committed to serving everyone who lives in or visits our eight counties. We strive to provide the best possible customer-driven services. Please do not hesitate to call or visit us for a service or a potential partnership.

Sincerely,

Becky F. Campbell

Becky F. Campbell, RN, PhD
Health Director

Who We Are

DHEC's Mission

To Promote and Protect the Health of the Public and the Environment.

DHEC's Values

Use of Applied Scientific Knowledge for Decision Making:
We are committed to the use of rational methods and scientific knowledge to provide answers to guide our professional judgment.

Cultural Competence:
We are committed to cultural competence by recognizing, respecting, understanding, accepting, and valuing different cultures in order to provide effective services to all our customers.

Customer Service:
We are committed to meeting or exceeding customers' identified needs and expectations with quality service.

Excellence in Government:
We are committed to being an organization that is quality-focused and customer-driven. We build awareness of health and environmental issues with citizens by using more effective means of informing and educating the public.

Local Solutions to Local Problems:
We are committed to cooperation and collaboration within our agency and with local resources to develop healthy communities that are active in improving their own health and environment.

Teamwork:
We are committed to working together to make decisions and reach common goals.

What is Public Health?

To some, public health is a county nurse, immunizations, or tuberculosis control; to others, it is a sanitation program. Its image is different to each person, but its services are provided for all. Public health is all these things and more. It is a combination of many personal and environmental programs, services for prevention of diseases and services for promoting the well-being of the community. Along with individual health, public health is concerned with population health. As such, DHEC is responsible for assessments of health.

What is DHEC's Role in Public Health?

The South Carolina Department of Health and Environmental Control (DHEC) is the state government agency tasked with promoting and protecting the health of the public and the environment. This responsibility is too big for one entity to perform alone, thus it requires DHEC to work in a cooperative spirit with the federal government, other state agencies and local communities throughout each of the 46 counties in this state. To assist in this effort and based upon geographical location, DHEC has grouped the 46 counties into eight regions.

Fiscal Year 2009 Highlights

Program	Abbeville	Anderson	Edgefield	Greenwood	Laurens	McCormick	Oconee	Saluda	Total
Animal Bite Incident Reports (Calendar Year 2009)	81	474	48	322	186	8	172	34	1,325
BabyNet Referrals	62	464	55	163	211	21	220	55	1,251
Birth Certificates Issued	909	6,876	585	4,187	2,458	285	2,549	667	18,557
Children's Rehabilitative Services Clients	28	132	14	91	78	5	83	25	456
Death Certificates	1,350	16,162	1,012	8,051	4,743	439	6,330	911	38,998
Dental Patients							276		276
Food Protection Field Activities	562	3,756	662	2,081	1,502	319	1,374	580	10,836
Permitted Food Service Establishments	73	668	71	286	193	49	246	57	1,643
Home Health Services Unduplicated Patients	47	494	23	50	141	23	91	85	954
Home Health Visits	1,078	13,613	338	719	2,624	401	1,893	2,131	22,797
All Immunizations (Seasonal Flu)	2,579 (795)	21,161 (7,102)	1,006 (216)	5,365 (1,596)	4,533 (1,859)	1,182 (447)	11,058 (3,868)	2,090 (555)	48,974 (16,438)
Lab Tests	3,791	23,574	2,810	10,445	8,704	1,958	9,593	4,113	64,988
Nurse Family Partnership Visits Completed		169							169
Postpartum Newborn Home Visits	170	920	123	625	429	70	256	196	2,789
Rabies Prevention Field Activities (Calendar Year 2009)	246	1,709	130	934	623	17	587	149	4,395
STD/HIV (Preventive Health)	676	9,362	613	3,195	3,052	485	1,140	1,054	19,577
Septic Tank Permits	64	375	84	69	245	31	350	75	1,293
Tuberculin (TB) Cases	0	1	1	1	0	0	0	5	8
Tuberculin (TB) Tests	155	1,014	29	573	318	65	333	119	2,606
Wastewater Field Activities	244	2,505	501	927	1,144	159	1,599	292	7,371
WIC Encounters	4,001	25,511	3,033	11,748	11,094	1,534	11,098	4,491	73,590
Women's Health Services Visits	1,071	8,457	968	3,291	3,264	675	4,762	2,065	24,553

County Demographics

County/state	2000 Census Population	2000 Population Details	2008 * Median Household Income	2008 ** Children On Medicaid	2008 * Population Estimate	2008 * Population Estimate Details
Abbeville	26,167	68.3% White 30.3% Black .8% Hispanic	$36,041	2,708	25,404	69% White *** 29.1% Black 1.1% Hispanic
Anderson	165,740	81.6% White 16.6% Black 1.1% Hispanic	$44,747	16,004	182,825	79.4% White *** 16.7% Black 2.2% Hispanic
Edgefield	24,595	56.8% White 41.5% Black 2% Hispanic	$42,422	2,296	25,546	55.7% White *** 39.6% Black 2.8% Hispanic
Greenwood	66,271	65.6% White 31.7% Black 2.9% Hispanic	$39,628	7,057	68,549	62% White *** 31.6% Black 4.9% Hispanic
Laurens	69,567	71.6% White 26.9% Black 1.9% Hispanic	$40,432	6,969	69,681	70.2% White *** 25.5% Black 3.4% Hispanic
McCormick	9,958	44.8% White 53.9% Black .9% Hispanic	$37,676	859	10,093	51.3% White *** 47% Black .9% Hispanic
Oconee	66,215	89.1% White 8.4% Black 2.4% Hispanic	$42,668	6,826	71,274	87% White *** 7.9% Black 3.8% Hispanic
Saluda	19,181	65.8% White 30% Black 7.3% Hispanic	$40,295	2,140	18,625	57.7% White *** 28.1% Black 14.4% Hispanic
State	4,012,012	67.2% White 29.5% Black 2.4% Hispanic	$44,695	418,172	4,479,800	65.2% White *** 28.5% Black 4.1% Hispanic

* Data Source 2008 US Census Bureau State and County QuickFacts
** Data Source 2008 SC Kids Count
*** White persons not Hispanic

Meeting the H1N1 Influenza Challenge

The first cases of the novel influenza A/H1N1 (Swine Flu) virus were reported in Region 1 in early May 2009. Our regional epidemiology staff became quickly engaged in identifying populations that had been exposed or become ill with the virus. As the virus spread, surveillance efforts turned to monitoring hospitalizations, deaths, clusters of influenza-like symptoms, and school absenteeism.

Being a novel pandemic influenza virus, A/H1N1 (Swine Flu), emerged and spread quickly around the globe moving to a different rhythm than we normally see in seasonal viruses. Seasonal flu viruses tend to attack the older populations and strike in the winter months. The H1N1 virus hit hardest in summer and fall and attacked younger populations. From September 1, 2009 to December 31, 2009, DHEC reported 915 total laboratory confirmed H1N1 hospitalizations and 42 deaths.

In attempting to curb the spread of the virus, we used multiple strategies including surveillance and messages to the public for hand washing and protecting the cough. We joined the Centers for Disease Control in promoting vaccination as one of the best ways to prevent the H1N1 virus.

With federal funding to support H1N1 vaccinations, Region 1 hired staff to plan, implement and monitor the vaccination efforts. We received the first shipment of vaccine in October in the form of a nasal spray. A few weeks later we started receiving vaccine for injections. Since early vaccine shipments were not large enough to cover all populations, we targeted the following groups: pregnant women, caregivers of children under age 6 months, children age 6 months to 24 years and adults ages 24-64 who had medical conditions that put them at higher risk for influenza-related complications. On December 21 we opened the vaccinations efforts to all populations.

Through the H1N1 campaign we learned a lot of lessons. We found the best way to reach children was through the schools. We provided 24,866 first doses to children in 65 public elementary schools, 22 public middle schools, 18 public high schools and 10 private schools. Of the school staff 4,074 received vaccine and 8,652 second doses were given to children under age ten. Overall 33.6 percent of students participated in the vaccination program throughout the region. Efforts worked best when we took vaccine to where people worked, lived, went to school, or shopped. These efforts were especially helpful in reaching minority or low income groups. Recruiting participants was done through advertising and education where vaccine clinics were scheduled. We found all vaccination sites to be very appreciative and accommodating in allowing us to offer vaccine. As the H1N1 cases began to decline, people were less interested in getting the vaccine. Offering H1N1 vaccine at no charge was a big boost for participation.

Flu experts say it is impossible to know if or when there will be another wave of H1N1. A significant percent of the population has been vaccinated should the wave come back. Another population will be immune because they were sick with the H1N1. Next year's annual flu shot will include protection against the strain, along with two other seasonal viruses.

Inside Beauty: Promoting Preconception Health to Women

Preconception health is important for good birth outcomes. Region 1 received a March of Dimes grant to develop a toolkit to help physicians and agencies educate women of childbearing age about healthy behaviors. Existing consumer literature on preconception health targets women who are planning to become pregnant. However, half of pregnancies in South Carolina are unplanned and this kind of focus was unappealing to young women.

After obtaining consumer input and completing field testing, preconception health materials were developed using beauty as the focus. Presentation materials were tested with groups of young women. Of the women that were shown the presentation 57 percent indicated that they were more likely to ask their doctor about a preconception health issue.

Education toolkits were developed for physician offices and community groups. The community toolkit includes a CD with a PowerPoint presentation and reproducible fliers with a focus on beauty and health. This focus appeals to young women who do not perceive themselves as getting pregnant in their near future yet helps them make behavioral changes that improve pregnancy outcomes whenever they become pregnant. A limited number of wallet sized brochures were also included in the kit.

The physician toolkit includes CDC recommendations for preconception care, information on continuing education, a preconception health check sheet, copies of the fliers, and information on ordering related literature from our agency. The SC Tobacco Quitline is featured in the toolkit and recipients are now referring women who use tobacco to this important resource.

Physician toolkits have been distributed primarily to OB/GYN and Family Medicine offices. Community toolkits have been distributed to agencies, churches, community organizations, and colleges. Feedback on the toolkits has been very positive. Inside Beauty, although developed for women of reproductive age, has appeal for adult women of all ages.

This CD contains PowerPoint presentations and reproducible fliers that may be used to educate women in your organization about living a healthy lifestyle and the importance of living healthy in regards to future preganancies.

This material is for information purposes only and does not constitute medical advice. The opinions expressed in this material are those of the author(s) and do not necessarily reflect the views of the March of Dimes.

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South Carolina Department of Health and Environmental Control

CR-009599 12/09

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- Inside Beauty PowerPoint Presentation
- Inside Romance PowerPoint Presentation
- Tips for Presenters

Reproducible Fliers:

- Promoting Policies for Healthy Women
- 12 Inside Beauty Tips (Includes Spanish Version)
- Make a Reproductive Health Plan
- Genetic Conditions
- Medical Conditions & Vaccines
- Medications
- Healthier Eating
- Move More Every Day
- Healthy Weight
- Keeping Your Smile
- Smoking
- Alcohol
- Drugs
- Hazardous Materials
- Mental Wellness
- Healthy Relationships
- Sexually Transmitted Diseases
- Information for Men
- Talk to Your Doctor or Nurse
- Preconception Screening and Counseling Checklist

Financial Crisis in Region 1

South Carolina state revenues declined sharply as the economic downturn in 2008 spread across the country. With major state budget shortfalls, state agencies' funding was slashed. From July 1, 2008 to June 20, 2009, DHEC Region 1 took a 23.51 percent state funding cut equaling $1,668,496. From July until December 2009 Region 1 took another 5.63 percent state funding cut equaling $858,797.

Since the overwhelming majority of Region 1 funding supports salaries of employees, the cuts were a huge hit to the personnel base. Twelve employees were lost to an early retirement buy-out; 16 employees to regular retirement; and 22 employees through attrition for a total of 50 FTEs during this same time period.

Losing this many staff takes a toll on public health. We lost a community diabetes program designed to address the high rate of diabetic deaths in Edgefield, Greenwood, and McCormick counties. Postpartum newborn home visits were discontinued in Oconee County due to lack of staff. Anderson County was forced to accept referrals only on newborns that were considered at high risk. The Fetal Infant Mortality home visit program was eliminated. Work on community assessments was stopped in all counties. Vital record services were reduced in Abbeville, Edgefield, McCormick and Saluda. Chronic disease prevention activities were reduced in all counties. Environmental Health's ability to meet food inspection standards has decreased region wide with loss of staff.

The region was forced to make significant changes in the way services are delivered in Oconee County resulting in a number of disgruntled customers. WIC and immunization services are now offered only in Walhalla while family planning, STD/HIV services and health education are offered only in Seneca. All programs across the region have been forced to decrease some level of services resulting in increased wait times, fewer available appointment slots, decreased ability to meet compliance requirements and unhappy customers.

Region 1 is fortunate to have other sources to support some public health services. WIC, Public Health

Preparedness, and Epidemiology are completely supported by federal funding and have not been impacted by the budget cuts thus far. The Home Health program is funded completely off of the revenue generated. Programs that receive some federal funding include family planning, immunizations, chronic diseases, STD/HIV, tuberculosis, and maternal child health services. The programs that are funded primarily through state funds and have been hit particularly hard are Environmental Health, BabyNet, and Vital Records.

Recovery from the large cuts will be slow and painful. Unfortunately the true impact of these cuts to public health promotion and prevention activities may not be felt until many years down the road. Predictions indicate that state revenues will continue to fall and more budget cuts will be implemented. Region 1 will continue to do the best it can with what resources are available. Dedicated Region 1 staff members are the hallmark for weathering this storm.

Ethical Dilemmas Associated with Vaccinations: A Public Health Perspective

In 2009 the Region Leadership Team formed an ethics committee to examine some of the ethical dilemmas faced in the workplace and to create an environment where the best and right decisions were made. One such dilemma is presented in this article.

The H1N1 Pandemic Influenza outbreak of 2009 is the fourth major medical pandemic in the past 100 years. On the surface it may appear that following the Centers for Disease Control (CDC) recommendation to be vaccinated against the flu virus is an easy one. However, many ethical dilemmas can arise from this simple recommendation. Should people, especially health care workers, be required to accept the vaccination? Should certain population groups be targeted for the vaccine if the supply is low?

Personal choice is an important value within the ethical framework of our society. Yet, if less than adequate numbers of people choose not to be vaccinated, the whole community loses its protection. Health care workers who fail to get the vaccination not only risk spreading disease to other patients and co-workers but also risk becoming ill themselves, thus contributing to the workforce crisis. Reasons for not getting the vaccine include beliefs that vaccines are ineffective, harmful, and/or unpleasant.

Because vaccine supplies were slow to be produced, the CDC had to make decisions about who would receive the H1N1 vaccine first. The CDC based their decision on which population group was being hit the hardest: the younger population. Senior citizens, who were accustomed to being the first to receive seasonal flu vaccine, did not understand why they were left out of the targeted group for H1N1. There were outcries of government conspiracy and age discrimination. Some people felt the vaccine should be made available to "first come first serve" regardless of scientific evidence.

As with many concerns regarding public health provision, there are conflicts between the private benefits to the individual and the greater good of society. Personal self-interest and individual choice have historically provided lower vaccination rates, often much less than public health agencies perceive as the optimum level. Due to the need for herd immunity, societal benefits are greater than individual benefit. Persons with faith-based concerns, health and medical matters or social reasons are often given exemption from vaccination.

In an effort to overcome adversity, much attention was given to educating the public about the safety of the vaccine and the dangers of the disease. Vaccinations were offered in easily accessible locations such as schools, workplaces, shopping areas, and community centers. The CDC also educated the public about their decision to target certain groups and why senior citizens should wait.

Some health care providers offered an opportunity for employees to decline the vaccination but included requirements for working without the vaccine such as wearing masks when engaging in patient care.

Confusion exists in the minds of many about what should be mandated and the criteria that should be used when determining public health intervention. The H1N1 virus did not produce the pandemic crisis that was feared. However, ethical dilemmas will continue to challenge public health.

Nurse-Family Partnership (NFP) of Anderson

The Nurse-Family Partnership (NFP) of Anderson celebrated a successful first year in March 2010. The NFP is a national community health program implemented locally in Anderson by SC DHEC Region 1. Year one for the Anderson site was funded by South Carolina First Steps and years two through seven will be funded by the Duke Endowment.

The goals of the NFP are to improve pregnancy outcomes, child health and development, and the economic self-sufficiency of the family. The NFP is based in the Westside Community Center, and it is staffed by four bachelors prepared nurse home visitors, a masters prepared health educator, and a masters prepared nurse supervisor.

The first NFP client enrolled March 26, 2009. Since that time the client base has grown to 81 enrolled clients. The NFP welcomed the first baby on July 11, 2009, and the NFP has welcomed 53 babies since then. The NFP babies have good birth outcomes; 91 percent were born at 37 weeks or greater and 92 percent weighed 2500 grams or more at birth.

As a new program in Anderson, the NFP conducted various public awareness and outreach activities to gain support and referrals for the program. The NFP hosted a community open house in June followed by a birth celebration in October. The NFP provided outreach to 10 physicians' offices, 5 school districts, 4 clinics, and multiple community organizations. The NFP has received 261 referrals since the program began. The main referral sources are pregnancy and WIC clinics, health care providers, and school districts 1 and 4.

Although the program is implemented by SC DHEC, it is truly a community program. This year the Community Advisory Council expanded to twelve voting members representing health care, education, business, human services, and local government. The Community Advisory Council recently completed the mission and vision statement and strategic plan. The NFP welcomed community support from Safe Kids, Cribs for Kids, Women & Children Succeeding of AIM, the YMCA Child Development Center, Palmetto Youth Connections, and others. The NFP was a recipient of a $5000 community grant from the Stevenson's Charitable Trust. This money provided basic necessities for mothers and materials to implement Partners in Parent Education (PIPES).

The NFP is still accepting referrals and enrolling new clients. The first program participants will graduate in the summer of 2011. The diversity of investment and commitment by multiple partners will help to ensure future success of the program. With continued support by our partners, NFP will be able to continue improving the lives of first time moms and infants for many years to come.

Breastfeeding Support Policy

Region 1 is continuously striving to encourage breastfeeding success, extend breastfeeding duration, and increase breastfeeding rates. In June 2009 the Region 1 Breastfeeding Task Force completed and added the Breastfeeding Support Policy to the Region 1 Administrative Policy & Procedure Manual. This policy supports breastfeeding in the workplace for all DHEC employees of the region. Rocking chairs were purchased for each county with a goal of using them in a designated area at each county health department for women to privately and comfortably nurse or express milk. Thus far, six of the eight counties have successfully created a Breastfeeding Room.

In an effort to further advance breastfeeding, WIC staff throughout the state will receive "Using Loving Support to Grow and Glow in WIC." This is a standardized competency-based curriculum to ensure that all WIC staff members attain a level of proficiency in the skills required to promote and support breastfeeding in the local WIC clinic. This curriculum provides basic competencies for staff, and assists them in understanding and acting on their important role as part of the family's "Circle of Care."

In conjunction with the policy efforts above, Region 1 staff are trained in the "Business Case for Breastfeeding", a program which targets businesses and agencies in an effort to assist them with developing their own breastfeeding friendly policies. Regional staff members continue to work closely with the SC Breastfeeding Coalition to identify organizations interested in breastfeeding policy development. It is hoped that the regional policy will serve as catalyst and model for other workplaces in promoting breastfeeding. Staff members are available to assist in any way.

Children with Special Health Care Needs Annual Valentine Dance

Since 1997 a Valentine Dance has been held each year in Greenwood for children with special care needs. The number of participants has grown each year. It has become a much anticipated event with lots of excitement. To assure transportation and participation, the event was created as a school in-service. The following schools have participated over the years: Emerald High School, Northside Middle, Eastside Elementary, Joanna-Woodson Elementary, Douglas Elementary, and Saluda Middle Schools.

The event requires a lot of planning, volunteer participation, food, space, and educational entertainment. Educational entertainment has focused on such topics as good oral hygiene and nutrition. Puppet shows and dance troupes are always a big hit with the children.

The Dance was held in 2008 in the First Baptist Church Fellowship Hall in Greenwood. "Experienced" teenagers who have attended several events were the first to take advantage of the physical activity on the dance floor. The event is almost like a homecoming since so many of the children know each other and the teachers. Each year comes with special twists and highlights. With the event falling in the middle of February, weather can always present challenges. The many DHEC volunteers come back each year to help serve food, line dance with the children and/or direct traffic.

Although each year comes with its challenges, the one thing that never changes is how much kids love to dance. Children with special care needs are no different than other children. Interacting with others increases their feelings of love and appreciation.

Training Offered for New and Prospective Food Service Operators

In a continuous effort to provide quality customer service, the Region 1 food protection team has implemented a training program for new and prospective food service operators. Prospective food service operators meet face to face with the food protection staff, prior to opening a food service establishment, to review the facility's construction and organizational plans, evaluate the facility's proposed menu, and offer training and assistance on proper procedures for reducing or eliminating critical risk factors.

Critical risk factors that contribute to food borne illnesses that are reviewed with food service operators include:

- proper cooking temperatures
- proper hot and cold holding temperatures
- proper cooling and reheating methods
- proper hygiene
- preventing cross contamination
- restricting ill employees from work when appropriate
- proper sanitization of equipment and utensils
- obtaining food from approved sources

The prospective operator is given the opportunity to ask questions and also take a "training" test based on **Retail Food Establishments, Regulation 61-25.** This training experience provides much needed knowledge and insight before a permit is issued or an inspection is ever conducted. It allows the food protection team and the prospective operator to map out a plan for protecting the safety of the food consumed by the public.

The successful implementation of this training process has prompted the agency to consider adopting this practice statewide and incorporating it into future policy. Traditionally, training opportunities have been offered to food service operators and employees who are experiencing issues or difficulties with the day-to-day operation of a food service establishment. Today, with training being provided before a facility opens, the new or prospective food service operator should have a clear understanding of what it means to provide safe and wholesome food to the public.

Newborn Home Visit Program

In February of 2008, the Anderson and Oconee Post-partum Newborn Home visiting program suffered the loss of three nurses. Due to state budget cuts, all but one of these positions went unfilled. We were left with the question, how would we provide service to approximately 1500 mothers and their infants with a 65 percent reduction in staff? While we were overwhelmed at this question, we knew two things: it would be impossible to continue these visits the way we always had and the entire process would need to be analyzed to determine the most advantageous use of staff and resources.

The first step was to develop a list of high risk indicators.

Maternal High Risk Factors	Infant High Risk Factors
Age less than or equal to 18	**Gestational Age Less than 38 weeks**
Perinatal Infection	**Jaundice**
Cognitive Challenges	**Feeding Problems**
History of post-partum depression	**NICU or Intermediate Nursery Required**
Elevated Blood Pressure	**Very Low Birth Weight/Low Birth Weight**
Hemorrhage	**Bili-Blanket**
History of Mental Health Disorder	**Multiple Births**
Diabetes	**Low APGAR**
Substance Abuse	**Congenital/Genetic Anomaly**
Abuse/Neglect	**Other Risk**

Once this list was compiled, a retrospective data analysis of client records in the two counties was completed. This analysis determined that approximately 60 percent of clients would be classified as high risk. Sixty percent of this population would mean nine hundred post-partum home visits. Without capacity to meet this challenge, an extremely difficult decision was made to stop taking referrals from Oconee Medical Center. The leadership of Region 1 felt that it was very important not to take referrals without capacity to provide the service. However, this meant leaving some 300 to 500 clients without this valuable service.

With that decision made the focus was shifted to Anderson. The original referral process required DHEC staff to go to AnMed Health Women and Children's hospital almost daily to gather referral information. This procedure required $72.00 in travel and approximately 32 hours of staff time a month to get little more than patient demographics. It was crucial to change the referral process since we needed more than demographic information to determine high risk criteria. A CQI group was convened to explore various referral forms and to develop one that would incorporate the high risk indicators. AnMed Health was presented with the new referral form. Hospital staff agreed to collect this information on all Medicaid eligible clients and send information to our office.

Now referrals are received daily from AnMed Health and surrounding health departments. A registered nurse triages the clients based on the information received. Clients who meet high risk criteria are called and offered a visit. The obstetrician and pediatrician are notified, in writing, when clients do not meet the high risk criteria.

Having to scrutinize a process so closely has led to positive points. For example, visits are now higher quality because the nurse is aware of patient specific problems prior to arriving in the home, and tightened criteria helps decrease routine visits to those with no real need. These positive outcomes are commendable; however, in missing home visits to other Medicaid newborns, key opportunities are missed to facilitate linkage with medical homes, provide education on prevention and self care, and touch the lives of hundreds of clients in this vulnerable population.

Moving Forward In Student Health

Since 1996, Region 1 has worked together with Healthy Ventures of Oconee County to instill leadership qualities within the youth of Oconee while helping improve and foster healthy behaviors. According to the 2007 South Carolina Youth Risk Behavior Survey, 83 percent of high school students are not eating the daily-recommended amounts of fruits and vegetables and 62 percent do not meet current physical activity recommendations. Students' poor nutrition and physical inactivity is a challenge in Oconee as in many other counties across the state. Since daily unhealthy behaviors often begin early in life and lead to chronic health conditions later, it is important for schools to develop and implement plans to address these behaviors.

Within a few short months in 2008, members of the Healthy Ventures Board with the support of School District of Oconee County developed and implemented a plan to empower middle and high schools to develop local solutions to individual school needs. Region 1 health educators were able to assist with the following:

- Training to establish School Health Teams;
- Training on School Health Index to assess the strengths and weaknesses of each school;
- Completion of self-assessment modules;
- And development of improvement action plans at each school.

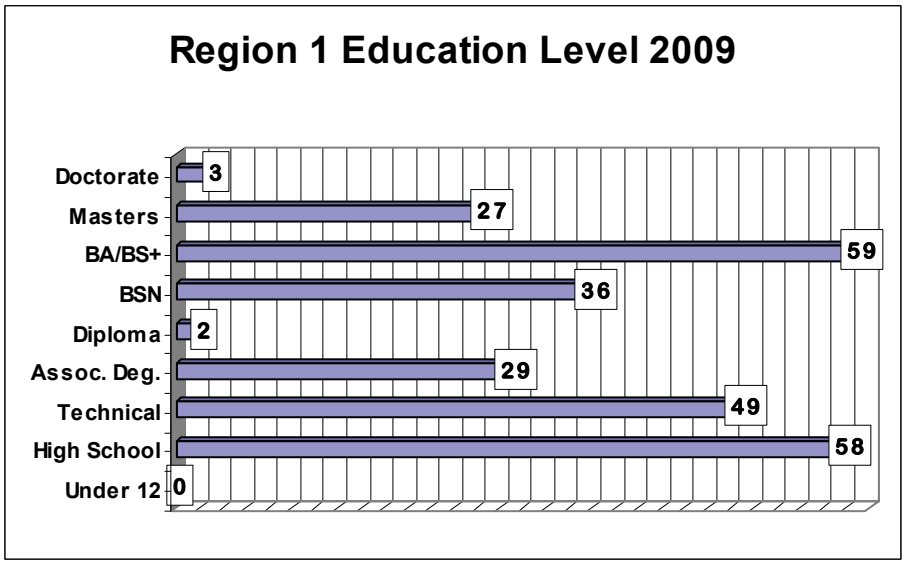
In an effort to strengthen and support the Student Health and Fitness Act of 2005 and expand to all the schools, Region 1 submitted a request to the Centers for Disease Control to conduct School Health Index training for all 11 elementary schools in Oconee in early 2009. The request was quickly approved and community support for the initiative grew.

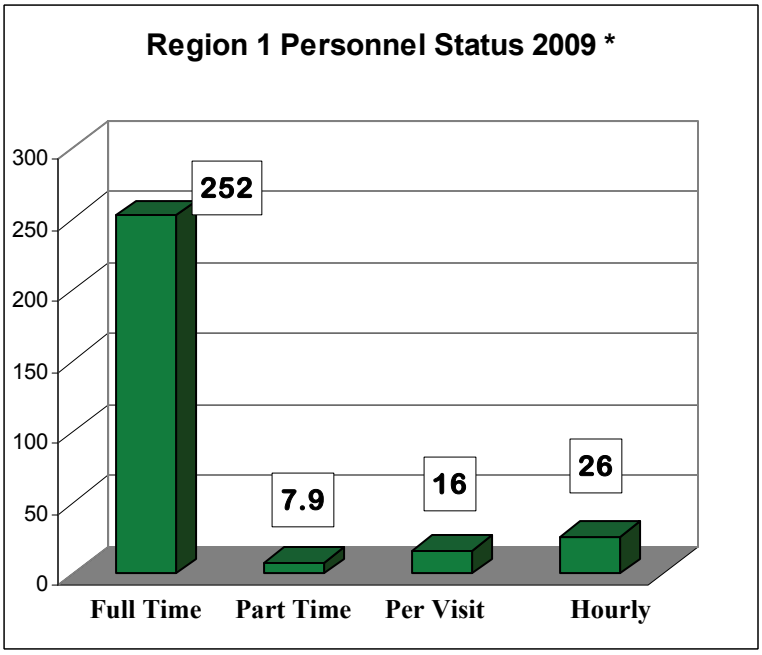
As planning continued, the need for continuing education for local school nursing staff emerged. Training plans expanded to include nurses training on student health needs such as the special needs of students with diabetes as well as information on SC Legislation affecting student and staff health and wellness issues. On October 19, 2009, eleven school nurses were able to obtain 5.0 contact hours of nursing continuing education through the SC Department of Health and Environmental Control.

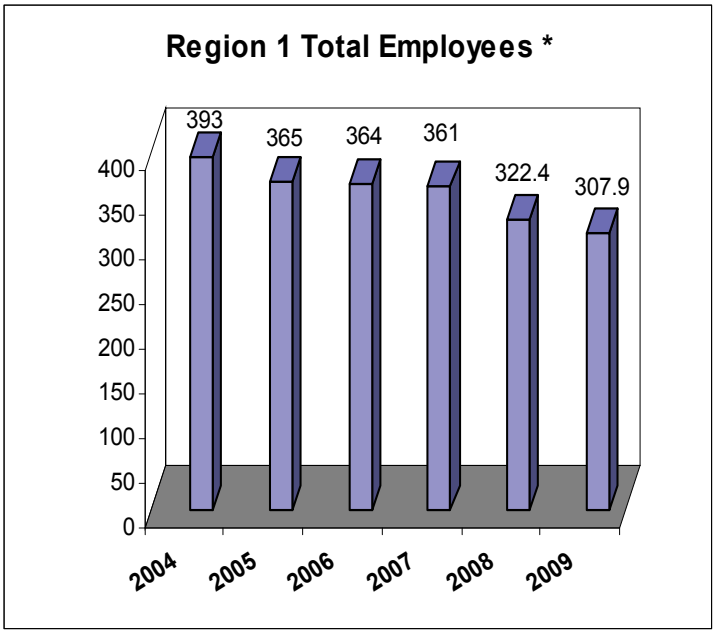
On October 20, 2009 School Health Teams from elementary schools brought administrators, staff, teachers, and the community together to create pillars of healthy lifestyles for students. Over 50 school personnel and community members were trained to implement the School Health Index. By utilizing the School Health Index, the school health teams will be able to establish their schools' strengths and weaknesses and to develop an improvement action plan to address them. In her report to the Centers for Disease Control, trainer Cindy Coney, in referring to the level of community support, facilities, participant preparation and knowledge stated that, "This is one of the best SHI (School Health Index) trainings I have ever done."

2009 Administrative Overview

We often get questions about our funding sources, the type of services we provide, and the educational background of our personnel. Graphs are included to help address those questions. We receive federal, state, and county funding as well as revenue from Medicaid, Medicare, third party, and private pay. As the population and area grows, and difficult employment times hit, the need for our services increases, yet resources to deal with those needs dwindle. We are fortunate to have well qualified and dedicated employees to provide the highest quality of customer service possible. With severe state budget cuts and federal funding to provide H1N1 vaccinations, our financial situation has changed over the last year. We anticipate continued fluctuation in the coming years.



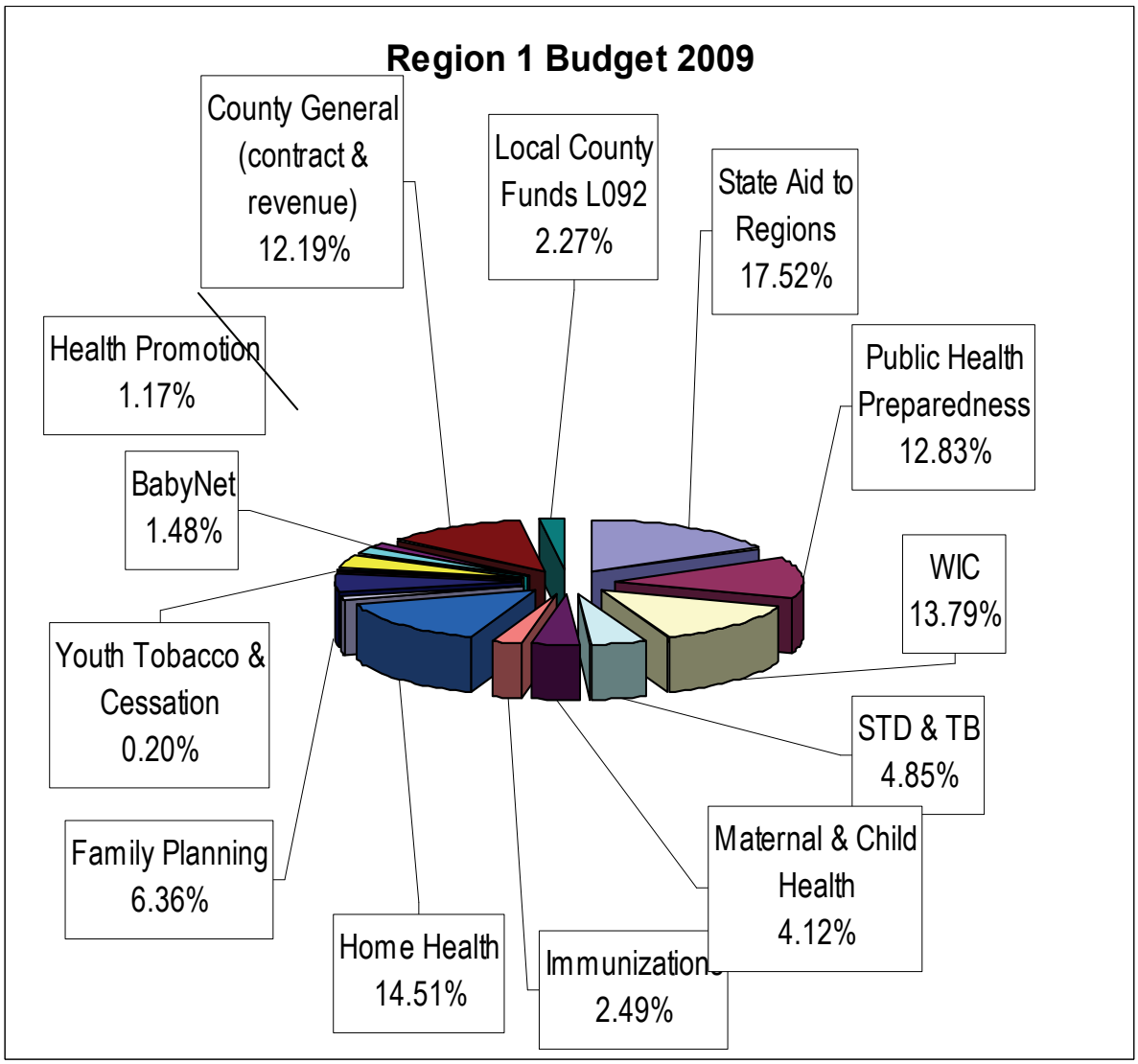


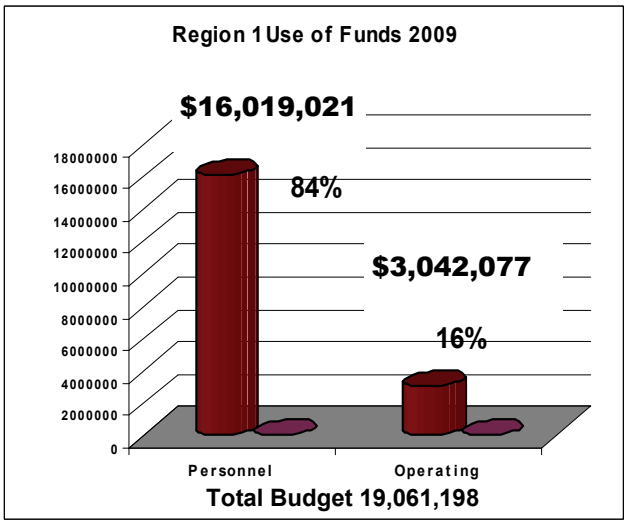


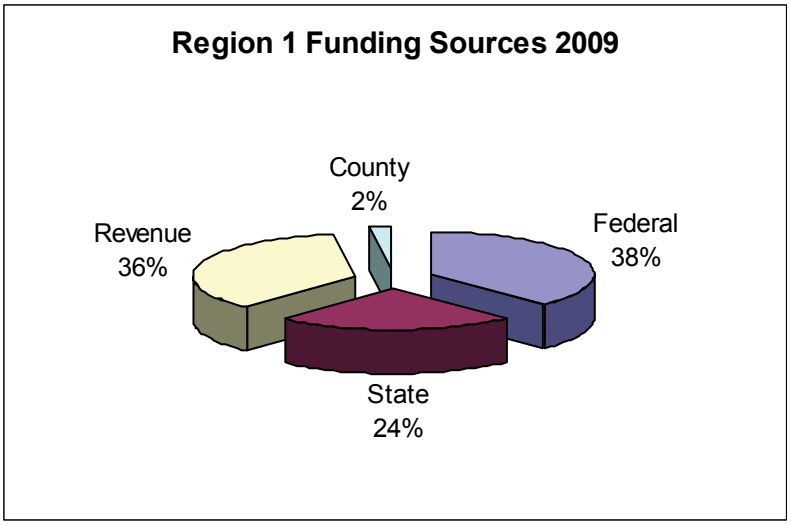
*These numbers do not include hourly employees hired to assist with H1N1 activities.

2009 Administrative Overview

continued







Health Indicators

Goal: Improve the quality and years of healthy life for all.

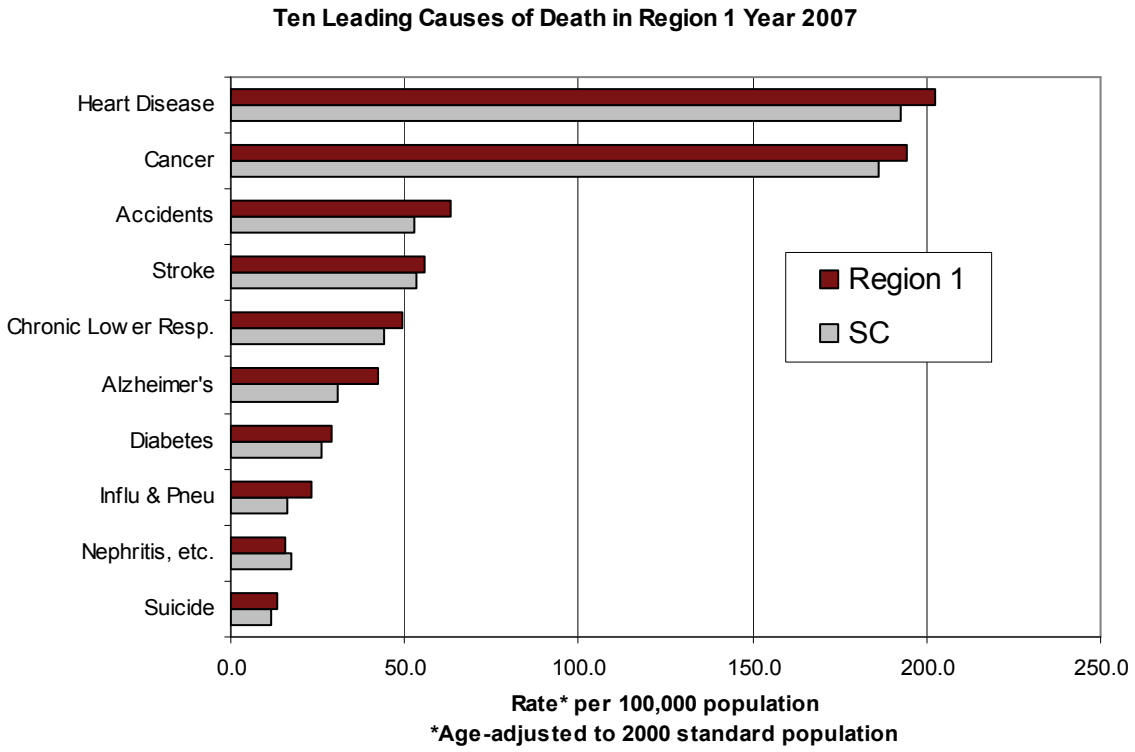
The primary goal of a healthy community is to ensure individuals of all ages have a long and healthy life. Examining leading causes of death and monitoring their trends in our population aid the community in addressing emerging health concerns and evaluating program areas.

Leading Causes of Death

Mortality rates, which are the number of deaths per population at risk, are used to describe the leading causes of death. Mortality rates provide a measure of magnitude of deaths within a population. Mortality rates are presented for the entire population of Region 1 and South Carolina by cause of death, as well as for infants (less than one year).

The 10 Leading Causes of Death for 2007

In 2007, the leading cause of death in Region 1 was heart disease. Heart disease was also the leading cause of death for South Carolina and the United States. The top five leading causes of death for Region 1 account for an average of 3,090 deaths per year, or 62.6 percent of all deaths.

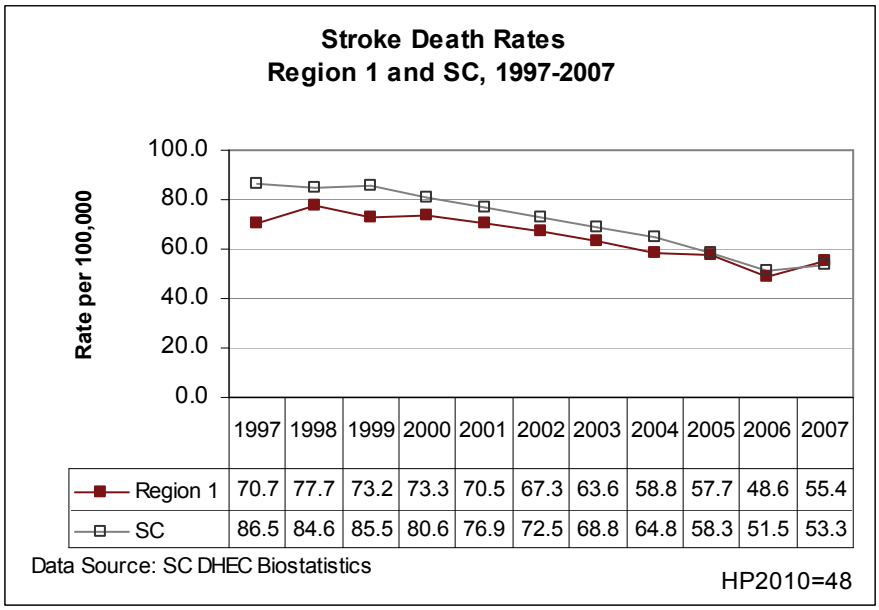


Data Source: SC DHEC Biostatistics

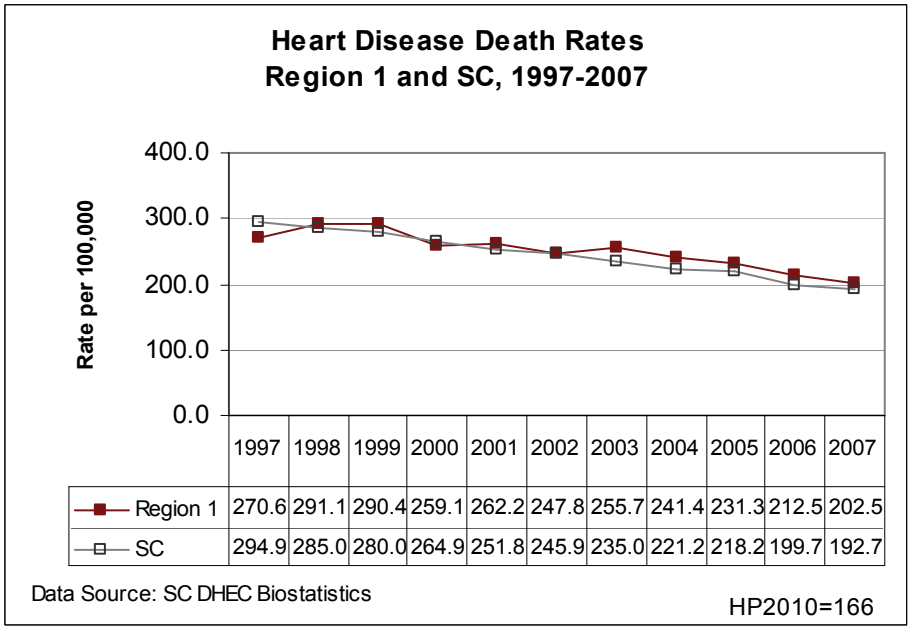
Heart Disease and Stroke

Heart disease and cerebrovascular disease (stroke), two of the principal components of cardiovascular diseases, combined account for thirty percent of all deaths in Region 1. Heart disease death rates for Region 1 are similar to those of the state. Both Region 1 and South Carolina have shown an overall decrease.

Stroke death rates have decreased significantly since 1997 for both Region 1 and the state. Increased awareness of the signs and symptoms of heart attack and stroke have aided in this improvement. In 2009, community efforts were aimed at increasing awareness of heart disease and stroke symptoms. The program was targeted to African Americans to encourage recognition of the symptoms of stroke and quick access to medical care.



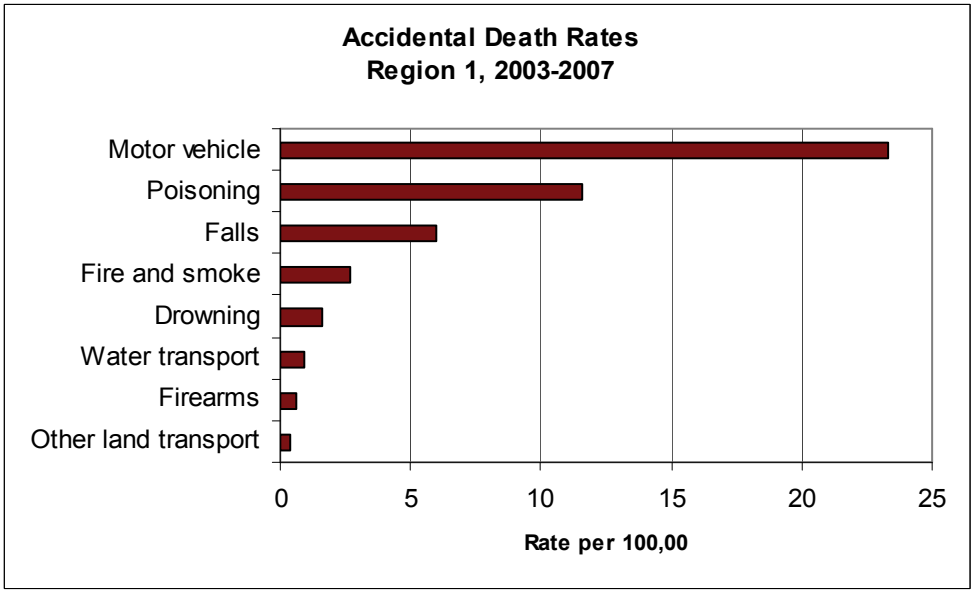
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Region 1	70.7	77.7	73.2	73.3	70.5	67.3	63.6	58.8	57.7	48.6	55.4
SC	86.5	84.6	85.5	80.6	76.9	72.5	68.8	64.8	58.3	51.5	53.3



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Region 1	270.6	291.1	290.4	259.1	262.2	247.8	255.7	241.4	231.3	212.5	202.5
SC	294.9	285.0	280.0	264.9	251.8	245.9	235.0	221.2	218.2	199.7	192.7

Addressing risk factors such as smoking, high blood pressure, obesity, inactivity, and health disparities in the region can further improve an overall vascular heart.

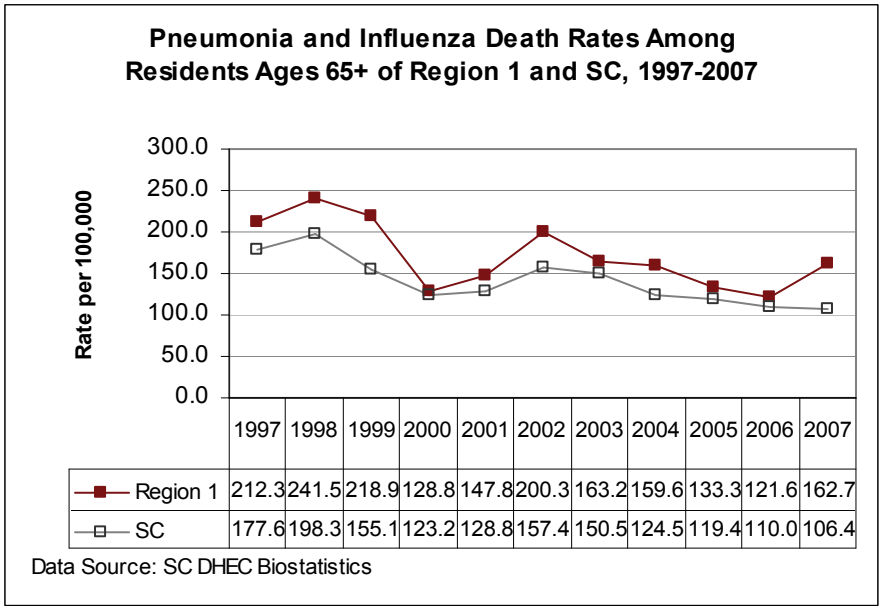
Accidents



From 2003-2007, motor vehicle crashes caused the majority of accidental deaths in Region 1 and South Carolina. The second leading cause of accidental deaths was poisoning for Region 1. Among the elderly, falls are the leading cause of accidental death, and among children, motor vehicle crashes. Region 1 works with local community organizations as well as Safe Kids Organizations across the region to assist parents and caregivers in the appropriate installation and use of child safety seats. Region 1 also has a Certified Child Passenger Safety Technician on staff. From 1997 to 2007, the accidental death rates for the Region have varied little year to year.

Goal: Improve the Quality of Life for Seniors

The senior population is the fastest growing age group of Region 1. Medical advancements in the last century have added many years to our lives, but we must ensure that these are healthy years. Disease and disability should not be unavoidable consequences of growing old.

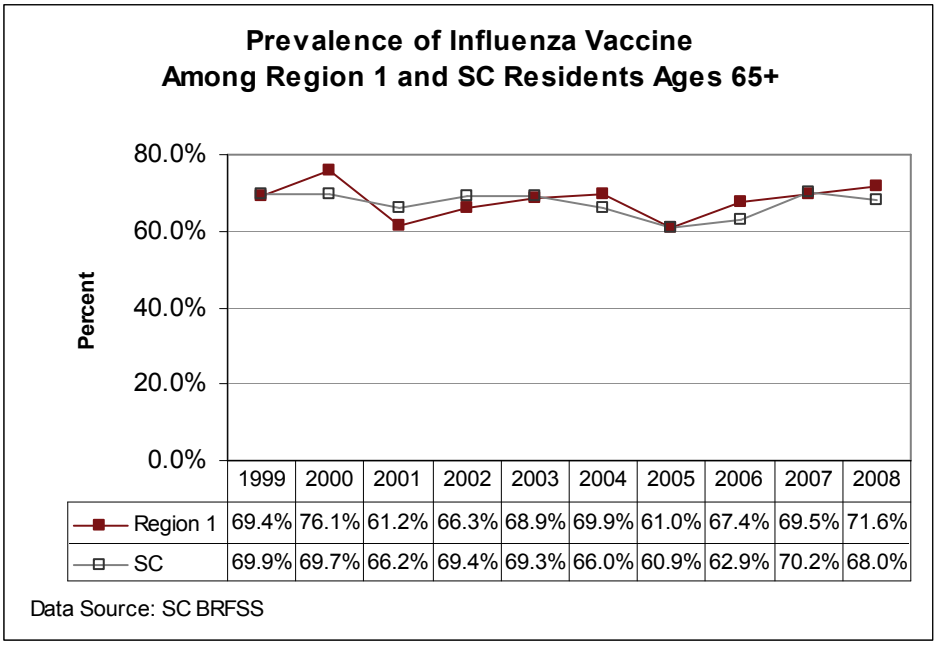


Pneumonia and Influenza

Influenza and Pneumonia combined are the eighth leading cause of death in Region 1 and in South Carolina. The death rates for Region 1 due to influenza and pneumonia have decreased by nearly twenty-five percent since 1997. Vaccinations are the primary reason for this decrease. Ensuring the senior population receives the one-time dose of pneumonia vaccine and annual flu shots will prevent these diseases and their life-threatening complications.

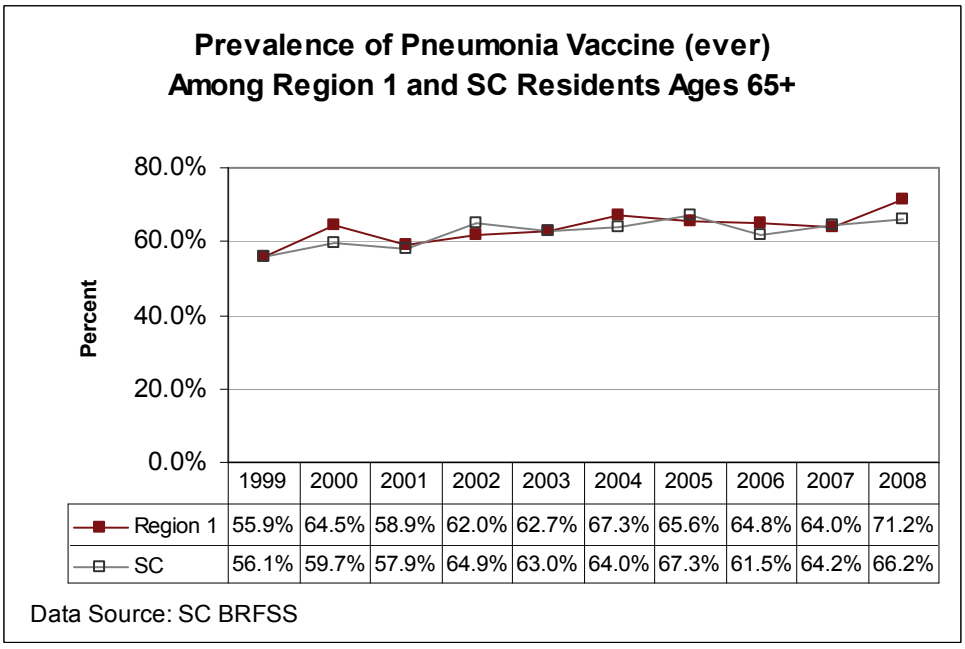
Vaccine Coverage for Pneumonia and Influenza

More than 70 percent of the senior population surveyed in the 2008 Behavior Risk Factor Surveillance System (BRFSS) for Region 1 reported receiving a flu shot in the last 12 months, higher than that of the state. The influenza vaccine coverage for this senior population has been increasing since 1999, achieving significant progress in decreasing deaths attributed to influenza. Ensuring influenza vaccination rates continue to increase is vital to protecting the health of our seniors.



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Region 1	69.4%	76.1%	61.2%	66.3%	68.9%	69.9%	61.0%	67.4%	69.5%	71.6%
SC	69.9%	69.7%	66.2%	69.4%	69.3%	66.0%	60.9%	62.9%	70.2%	68.0%

Data Source: SC BRFSS



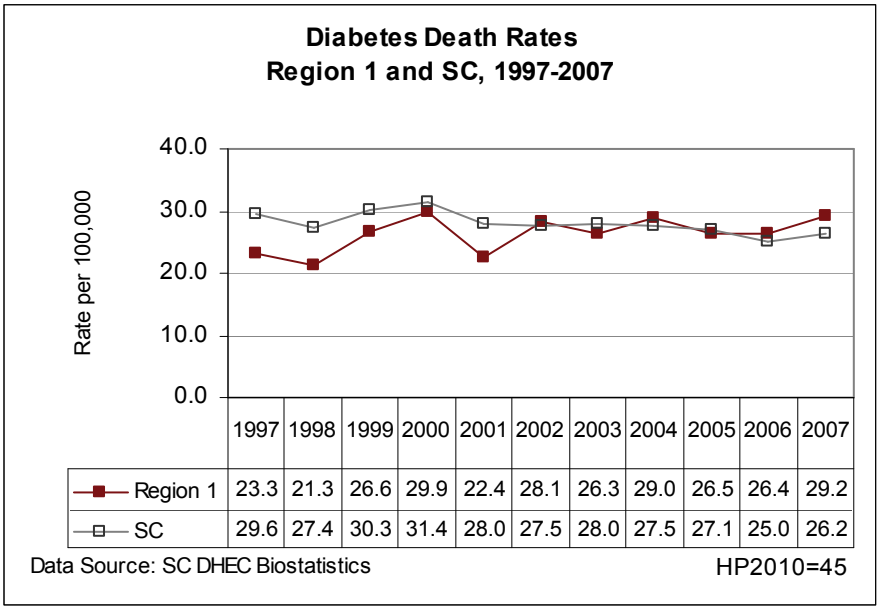
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Region 1	55.9%	64.5%	58.9%	62.0%	62.7%	67.3%	65.6%	64.8%	64.0%	71.2%
SC	56.1%	59.7%	57.9%	64.9%	63.0%	64.0%	67.3%	61.5%	64.2%	66.2%

Data Source: SC BRFSS

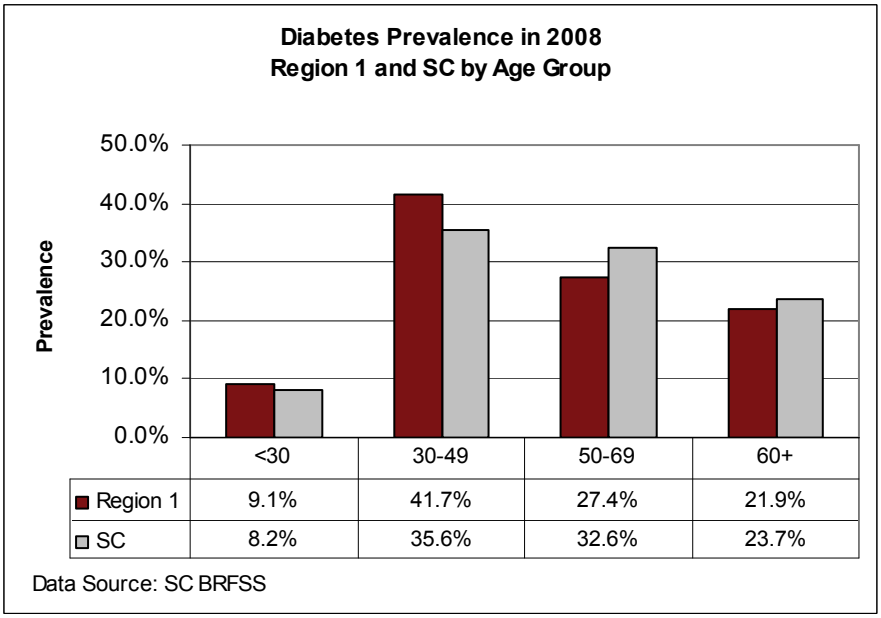
For pneumonia vaccine, coverage has increased from 55 percent in 1999 to 71 percent in 2008. The pneumonia vaccine is a single dose vaccine recommended every five years for people ages 65 and older. In 2008, Region 1 amplified the annual vaccination campaign for pneumonia and influenza, targeting the elderly population. Increased mass vaccination clinics have had a substantial impact on our vaccination coverage in Region 1.

Diabetes

Diabetes is a disease in which the body does not produce or properly use insulin, a hormone needed to change sugar into energy. In Region 1, deaths attributed to diabetes have been rising since 2001, but remain lower than the healthy people goal of 45 deaths per 100,000. Sixty-six percent of diabetes deaths in Region 1 occur in people age 65 and greater, 84 percent of deaths occur in those 55 and greater.



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Region 1	23.3	21.3	26.6	29.9	22.4	28.1	26.3	29.0	26.5	26.4	29.2
SC	29.6	27.4	30.3	31.4	28.0	27.5	28.0	27.5	27.1	25.0	26.2



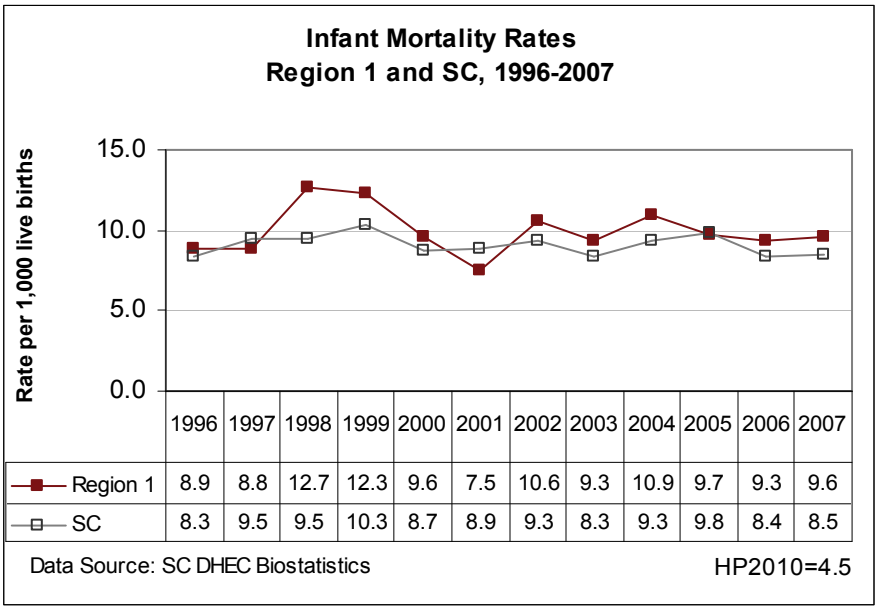
	<30	30-49	50-69	60+
Region 1	9.1%	41.7%	27.4%	21.9%
SC	8.2%	35.6%	32.6%	23.7%

The prevalence of diabetes or the number of people currently living with diabetes has been increasing in the last decade. The majority of those diagnosed are the senior population and those ages 50 and older. Of those who report having been diagnosed with diabetes, over 20 percent are Region 1 seniors and over 40 percent are those aged 30-49. These populations must be targeted to reduce the prevalence of diabetes and attributable deaths. Region 1 has a higher prevalence rate for diabetes than the state Just 30 minutes a day of moderate physical activity, coupled with a 5-10 percent reduction in body weight, can prevent or delay the onset of Type 2 diabetes.

Goal: Improve Maternal and Child Health

The health of mothers, infants, and children reflects the current health status of a large sector of the population and is the primary predictor of the health of the next generation.

Infant Mortality



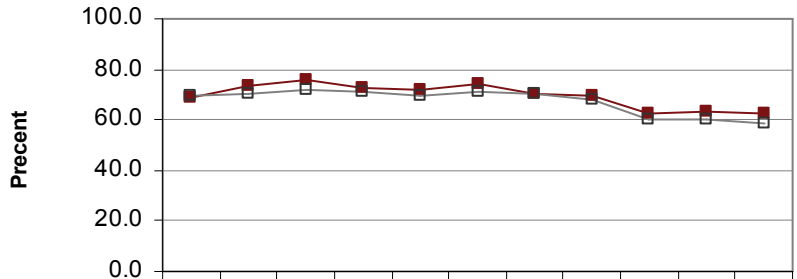
Infant mortality is used to compare the health and well-being of populations across and within countries and is commonly included as a part of standard of living evaluations. The infant mortality rate (IMR) is the rate at which babies less than one year of age die. In 2005, South Carolina had the third highest infant mortality rate in the Unites States with a rate of 9.8 deaths per 1,000 live births. (US has a rate of 6.9 deaths per 1,000 live births). The IMR of Region 1 has remained consistently higher than that of the state of South Carolina. Region 1's infant mortality rate has slightly decreased in the last 12 years from 10 deaths per 1,000 live births in 1992 to 9.6 in 2006. Programs such as Women, Infants, and Children, WIC, improve the health of nutritionally at-risk women, infants and children in an effort to decrease the number of fetal and infant deaths.

Region 1's continued efforts to reduce infant mortality rates have focused on awareness and education. The ABC's of Safe Sleep message was shared using press releases, billboards, pamphlets, posters, and press conferences. Safe sleep toolkits were developed for distribution to local community and faith groups and healthcare and childcare providers. In 2009, Region 1 has worked to improve preconception health using funds from the March of Dimes.

Women with Adequate Prenatal Care

The National Center for Health Statistics defines adequate care as having one's first prenatal visit with a health professional within the first trimester of pregnancy and additional visits as recommended. The receipt of adequate prenatal care is associated with improvements in pregnancy outcome, particularly a reduction in the risk of low birth weight. Region 1 has slightly higher percentages of women receiving adequate prenatal care than that of SC.

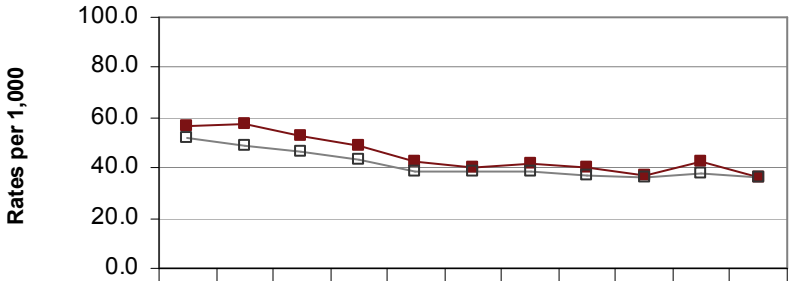
Percent of Women Receiving Adequate Prenatal Care
Region 1 and SC, 1996-2006



	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Region 1	68.9	73.4	76.0	72.8	72.2	74.0	70.5	69.8	62.3	63.5	62.6
SC	69.7	70.5	71.5	70.8	69.7	70.8	70.0	67.6	59.9	60.5	58.3

Data Source: SC DHEC Biostatistics, Kessner Index HP2010=90%

Teenage Pregnancy Rates, Ages 15-17
Region 1 and SC, 1997-2007



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Region 1	56.8	57.4	52.9	48.8	42.8	40.5	42.0	39.9	36.7	42.2	36.4
SC	52.1	48.5	46.5	43.2	38.6	38.2	38.2	37.0	36.5	37.7	36.5

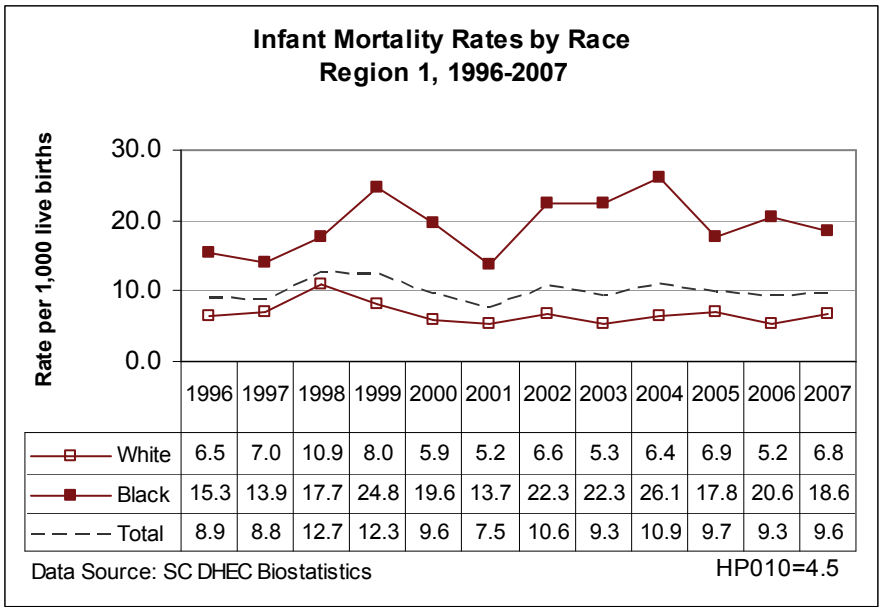
Data Source: SC DHEC Biostatistics HP2010=43

Teen Pregnancy

Teen pregnancy rates in Region 1 and in SC are lower than those of the United States. Region 1's rates are currently slightly lower than the HP2010 goal of 43 per 1,000, but teen pregnancy remains a concern for the community. Teen pregnancy prevention is one of the most strategic and direct means available to improve overall child well-being and to reduce persistent child poverty. Adolescents who have babies face serious health risks. Common medical problems among adolescent mothers include poor weight gain, pregnancy-induced hypertension, anemia, and sexually transmitted diseases (STDs). Later in life, adolescent mothers tend to be at greater risk for obesity and hypertension than women who were not teenagers when they had their first child. Teen pregnancy prevention programs must target the whole community: teens, parents, schools, and faith based organizations. Programs such as the Teen Clinic in Anderson are vital to decreasing teen pregnancy rates.

Goal: Eliminate Health Disparities

The second goal of Healthy People 2010 is to eliminate health disparities among specific sections of the population, including differences that occur by gender, race or ethnicity, education, income, or geographic location. This section highlights ways in which heath disparities can occur among various demographic groups in the region.

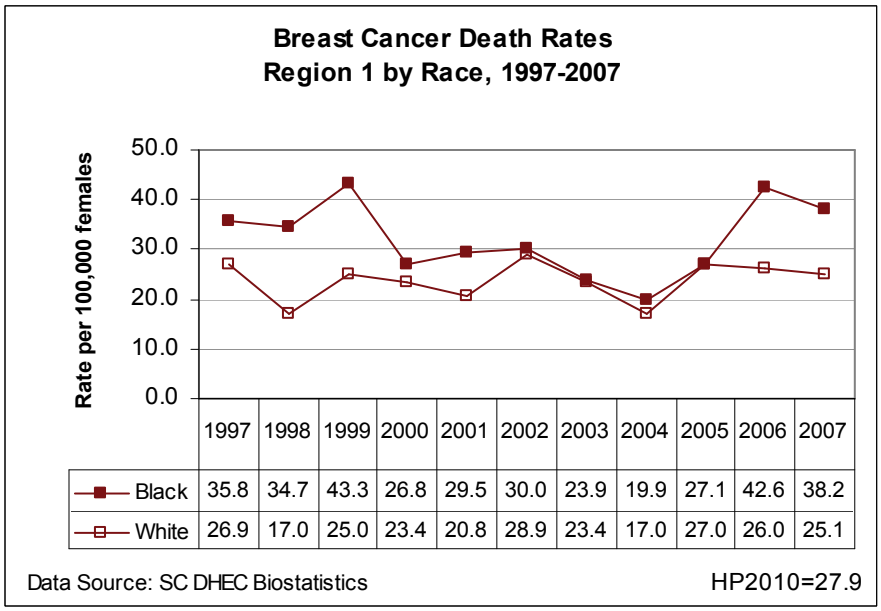


Infant Mortality

Racial disparities in infant mortality rates for Region 1 mirror the disparities evident in the state of South Carolina and the entire United States. From 1996 to 2007, there was an average of 19.3 black infant deaths per 1,000 live births and 6.7 white infant deaths per 1,000 live births. The infant mortality rates for black infants were almost three times that of the white infants. Because of small numbers of deaths to Asian and Hispanic infants, a detailed analysis of these groups is not possible. Unintentional pregnancies, infections, unhealthy lifestyle behaviors, and poor prenatal care increase the risk of infants dying before their first birthday. Racial disparities remain a significant concern for Region 1; however, programs such as WIC (Women, Infants, and Children), family planning, and newborn home visits help address these disparities.

Breast Cancer

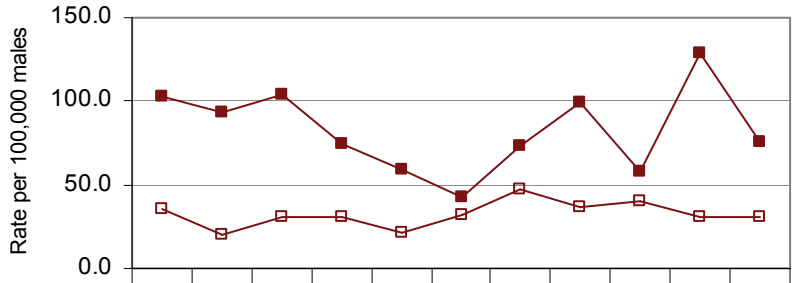
Breast cancer, the second leading cause of cancer in females, killed 91 women in 2006 in Region 1. There are marked disparities in death rates by race. Campaigns targeted at reducing death rates in African Americans have been successful in reducing the death rates in the population.



Prostate Cancer

The second leading cause of cancer deaths in 2005 for men in Region 1 was prostate cancer. Racial disparities in men who die from prostate cancer have continued to plague our community despite increased cancer screening efforts aimed at African Americans. In 2006, more black men died of prostate cancer than white men. Lack of access to regular medical care contributes to the increased prostate cancer death rates in black men. Region 1 provides educational information, linkages to local resources and encourages participation in recommended screenings and tests with healthcare providers as recommended by the American Cancer Society.

Prostate Cancer Death Rates
Region 1 by Race, 1995-2005



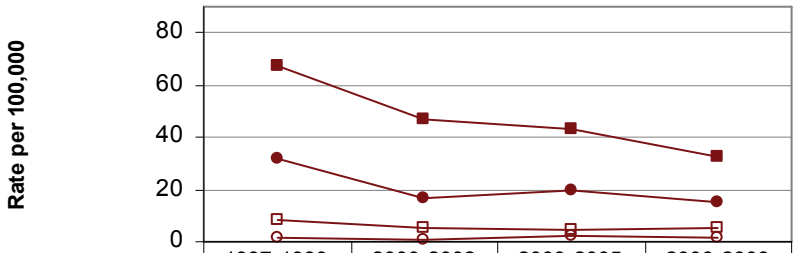
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Black	102.3	93.8	104.5	74.0	58.8	43.0	73.8	99.7	57.5	129.3	75.4
White	35.3	20.3	30.2	30.5	21.3	31.5	46.9	36.4	40.2	30.5	31.1

Data Source: SC DHEC Biostatistics HP2010=28.8

HIV/AIDS

From 2006-2008, 124 new cases of HIV/AIDS were diagnosed in Region 1. Fewer cases are diagnosed today than a decade ago, but more people are living with HIV/AIDS than before due to new treatments and care services. The black population in Region 1, as in the state of SC, experiences a higher incidence of the disease than white men and women. Black males have the highest incidence of HIV/AIDS, nine times that of white males. Region 1 has taken giant steps in decreasing the disparity between races in the last six years, decreasing the incidence in black men and women by half compared to over a decade ago.

New HIV/AIDS Case Rates
in Region 1, by Race/Gender



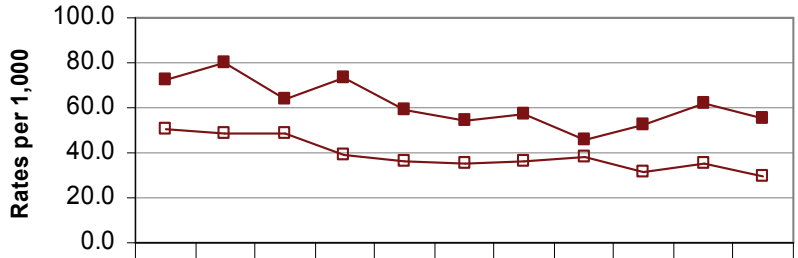
	1997-1999	2000-2002	2003-2005	2006-2008
White Male	8.2	5.3	4.6	5.3
Black Male	67.1	47.1	43.1	32.7
White Female	1.2	0.8	2.2	1.8
Black Female	31.4	16.6	19.4	15.3

Data Source: SC DHEC HIV/AIDS Surveillance

Teen Pregnancy Rates by Race

Teen pregnancy rates are lower than a decade ago, but black teens have seen an increase in teen pregnancy the last two years in Region 1. Although black teens continue to experience higher rates of pregnancy than white teens, since 1997 teenage pregnancy rates among black women have decreased by nearly a quarter. Efforts targeted at young black women should persist to further decrease the rates in this population.

Teenage Pregnancy Rates by Race, Ages 15-17
Region 1, 1997-2007



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Black	72.8	79.6	64.1	73.0	59.3	54.4	57.3	46.1	52.0	62.1	55.2
White	50.1	48.1	48.3	39.0	36.3	35.5	36.0	38.2	31.1	34.8	29.7

Data Source: SC DHEC Biostatistics HP2010=43